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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/484,749	01/18/2000	Qinyun Peng	FDN-2604	1054

7590 02/15/2002

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EXAMINER
SINGH, ARTI R

ART UNIT	PAPER NUMBER
1771	3

DATE MAILED: 02/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
09/484,749	PENG et al.
Examiner	**Art Unit**
Ms. Arti R. Singh	1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *initial filing on 01/18/2000* .

2a) ☐ This action is **FINAL.** 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above, claim(s) *9-33* is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-8* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☒ Claims *9-33* are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other:

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

   I. Claims 1-8, drawn to a glass fiber mat, classified in classes 428 & 442 in various subclasses.

   II. Claims 9-21 & 33, drawn to the roofing shingle, classified in class 52, subclass 518+.

   III. Claims 22-32, drawn to the process of preparing the glass mat, classified in class 427, subclass 186+.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions III and I & II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the intermediate or final product could be made by using a dry fiber web rather than a wet laid fiber. Additionally the adhesion modifier could either be applied prior to or simultaneous to the application of the resin.

3. Inventions I and II are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as a reinforcing layer for fiber reinforced plastics or as any of

the following: a base sheet, underlayment, a prepreg or insulation and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, different search and recognized divergent subject matter.

5. During a telephone conversation with Mr. William Davis on September 9, 2001 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-8. Affirmation of this election must be made by applicant in replying to this Office action. Claims 9-32 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

Specification

7. On page 4, line 2, what is "BUR"? The Examiner is unaware if what this actually is, please clarify.

Claim Objections

8. Claims 1, 2 and 6 are objected to because of the following informalities: When referring to the weights of the respective fillers i.e fibers resin and adhesion modifier the weights should state either weight % or % by weight. Appropriate correction is required.

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1-8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5, 9, 10, 11 & 13 of copending Application No. US 200/0009834A1 (09/759,043). Although the conflicting claims are not identical, they are not patentably distinct from each other because both the claims of copending application and the instant application encompass the articles.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.P. 5,518,586 to Mirous in view of U.S.P. 3,865,682 to Marzocchi.

Mirous discloses high tear strength glass mats comprising urea- formaldehyde resin binder applied to a fibrous glass mat and useful in making roofing shingles (column 2, lines 64-65). The resin is further modified by additives and cross linking agents (abstract and column 2,

lines 6-24). The fibers generally have a length of 0.25-3 inches (6.4-76 mm) and a diameter of 3 to 20 microns (column 3, lines 55-63). In column 5, lines 49-54 the instant patent disclose that the finished glass mat product generally contains between 60% to 90% by weight glass fibers and between 10% to 40% of binder. Thus, Mirous teaches the limitations of the claims 1-2 & 5-8 but does not teach the presence of the required polysiloxane as it's additive.

Marzocchi disclose the use of silanes, including derivatives of those sought in Applicant's claims 3 & 4 (i.e.Claim 4 limits the polysiloxane to a specific Markush group, which includes polyalkyl siloxane, a polyaryl siloxane, a poly alkylaryl siloxane or a polyether siloxane or a derivative thereof.). Hence it would have been obvious to a person having ordinary skill in the art to add the specific polysiloxane as the adhesion modifier to the resin of Mirous. Motivation to do so would be to improve the moisture resistance of the glass fiber mat useful as a roofing shingle, as is disclosed by Mirous. Therefore Claims 1-8 are rejected as being obvious over the cited prior art.

13. Any inquiry regarding this communication or earlier communications from the Examiner should be directed to Arti Singh, whose telephone number is (703) 305-0291. The Examiner can normally be reached Monday through Friday from 8 AM to 5 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor Mr. Terrel Morris , can be reached at (703) 308-2414. A Facsimile center has been established in Group 1700 on the 8th floor of Crystal Plaza 3. The hours of operation are Monday through Friday 8:45 AM to 4:45 PM. The telecopier number for accessing the facsimile machine is (703) 305-5408. This location should be used in all instances when faxing any

correspondence to Art Unit 1771. Use of the Group 1700 center will facilitate rapid delivery of materials to Examiners in Art Unit 1771.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-2351.

Ms. Arti Singh
Patent Examiner
Art Unit 1771
February 10,2002

TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700